Title (en)

SYMBOL ALIGNMENT IN HIGH SPEED OPTICAL ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING TRANSMISSION SYSTEMS

Title (de)

SYMBOLAUSRICHTUNG IN MIT HOHER GESCHWINDIGKEIT ARBEITENDEN OPTISCHEN OFDM-ÜBERTRAGUNGSSYSTEMEN

Title (fr)

ALIGNEMENT DE SYMBOLES DANS DES SYSTÈMES DE TRANSMISSION À MULTIPLEXAGE PAR RÉPARTITION ORTHOGONALE DE LA FRÉQUENCE OPTIQUE À HAUT DÉBIT

Publication

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Application

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Abstract (en)

[origin: WO2012136745A2] The present invention discloses a method for symbol synchronisation in high speed optical orthogonal frequency division multiplexing (OOFDM) transmission systems via coding the electrical OFDM symbols by adding an independent low power-level alignment signal, converting the encoded signal into the optical domain for transmission, and in the receiver converting the received optical signal to the electrical domain and digitally processing to detect the symbol alignment offset by utilising the independent low-power level alignment signal. The present invention is suitable for point-to-point and point-to-multipoint OOFDM networks and has the additional features of timeslot and frame alignment, compensation for receiver sampling clock offset and providing physical layer network security.

IPC 8 full level

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